

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA2004/001927

A. CLASSIFICATION OF SUBJECT MATTER

IPC⁷ B64C 11/46

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC⁷ B64C 11/46, F15D 1/00, F04D 29/66

Documentation searched other than minimum documentation to the extent that such documents are included in the fields

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms)

Databases: Delphion, EspaceNet, USPTO, Canadian Patent Database.

Terms: coaxial, propulsion, system, engine, propeller, flow, control, element, diffuser, vane, swirl, shroud

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant	Relevant to claim No(s).
X	US 3,879,941 (SARGISSON, D.F.) 29 April 1975 (29.04.1975) Description, column 2, line 51 to column 7, line 33; Figures 1A, 2A.	1 to 5, 7-8, 11-12, 27-29, 31-32, 35-36, 38-40, 42, 46 to 48.
Y		6 to 10, 13 to 19, 21 to 23, 25-26, 30, 33-34, 37, 41, 43 to 45, 49.
X	EP 0,761,947 A1 (MCGUIRE et al.) 12 March 1997 (12.03.1997) Description, column 7, lines 38 to 52, column 10, line 23 to line 54, column 12,	1, 2, 3, 11, 12, 27, 35.
Y	lines 11 to 17, column 15, line 50 to column 16, line 46, column 17, lines 3 to 13, column 17, line 37 to column 18, line 4, column 20, line 6 to line 22; Figure 3.	5 to 10, 29 to 34, 36, 37.
Y	WO 00/64735 (CYCON et al.) 02 November 2000 (02.11.2000) Description, page 16, line 8 to page 17, line 21; Figures 2, 3, 5.	9, 23, 33, 44.

☒ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents :
 "A" document defining the general state of the art which is not considered to be of particular relevance
 "E" earlier application or patent but published on or after the international filing date
 "L" document which may throw doubt on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
 "O" document referring to an oral disclosure, use, exhibition or other means
 "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
 "&" document member of the same patent family

Date of the actual completion of the international search

20 April 2005 (20-04-2005)

Date of mailing of the international search report

02 May 2005 (02-05-2005)

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No(s).
Y	DE 2,119,288 (FISHER, H.-O.) 16 November 1972 (16.11.1972) Description, page 2, line 1 to page 8, last line; Figures 1, 3.	13
Y	US 6,543,726 B2 (ILLINGWORTH, L.) 08 April 2003 (08.04.2003) Description, column 5, line 53 to column 6, line 37; Figures 6 to 10.	6, 30, 41
Y	CA 1,310,194 (ADAMSON et al.) 17 November 1992 (17.11.1992) Description, page 5, line 26 to page 7, line 10, page 7, line 32, page 11, line 19; Figures 1, 3.	9, 23, 33, 44
Y	EP 0,272,822 A1 (SHORT BROTHERS PLC.) 29 June 1988 (29.06.1988) Description, column 2, line 36 to column 4, line 28, column 5, line 6 to column 7, line 29; Figures 2, 3, 6, 7.	6, 13 to 19, 21 to 23, 25-26, 30, 41, 49
Y	US 4,676,459 (SEEFLUTH, U.C.) 30 June 1987 (30.06.1987) Description, column 2, line 15 to column 3, line 27; Figures 1, 4, 5	6, 13 to 19, 21 to 23, 25-26, 30, 41, 49
A, P	US 2003/0,228,214 A1 (MCBRIDE, M.W.) 11 December, 2003 Description, page 2, paragraphs 0017, 0018 and 0024 , page 3, paragraphs 0026, 0030; Figures 1, 5, 6A, 6B.	1, 13, 27, 38
A	CA 1,057,720 (BENSON, W.) 03 July 1979 (03.07.1979) Description, page 8, line 7 to page 14, line 10; Figures 1, 2, 4.	1, 13, 27, 38

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/CA2004/001927

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 3,879,941	29 April 1975 (29.04.1975)	None	None
EP 0,761,947 A1	12 March 1997 (12.03.1997)	CA 2,181,963 01 DE 69,608,513 D AT 0,193,353 E US 5,943,856 US 5,791,138 US 5,706,651 IL 0,119,150 A0	March 1997 (01.03.1997) 29 June 2000 (29.06.2000) 15 June 2000 (15.06.2000) 31 August 1999 (31.08.1999) 11 August 1998 (11.08.1998) 13 January 1998 (13.01.1998) 14 November 1996 (14.11.1996)
WO 00/64735	02 November 2000 (02.11.2000)	EP 1,175,336 A1 EP 1,175,336 B1 US 6,170,778 AU 0,755,241 B2 AU 0,042,333 A5 DE 60,004,038 C0 DE 60,004,038 T2 JP 2002,542,115 T2 IL 0,146,154 A0	30 January 2002 (30.01.2002) 23 July 2003 (23.07.2003) 09 January 2001 (09.01.2001) 05 December 2002 (05.12.2002) 10 November 2000 (10.11.2000) 28 August 2003 (28.08.2003) 15 April 2004 (15.04.2004) 10 December 2002 (10.12.2002) 25 July 2002 (25.07.2002)
DE 2,119,288	16 November 1972 (16.11.1972)	None	None
US 6,543,726 B2	08 April 2003 (08.04.2003)	US 2001/0,036,406 A1	01 November 2001 (01.11.2001)
CA 1,310,194	17 November 1992 (17.11.1992)	US 4,936,748 DE 3,927,463 A1 FR 2,639,609 A1 FR 2,639,609 B1 GB 2,225,297 A GB 2,225,297 B IT 1,231,390 A JP 2,161,135 A2 IT 8,921,559 A0 GB 8,919,322 A	26 June 1990 (26.06.1990) 31 May 1990 (31.05.1990) 01 June 1990 (01.06.1990) 11 September 1992 (11.09.1992) 30 May 1990 (30.05.1990) 02 September 1992 (02.09.1992) 02 December 1991 (02.12.1991) 21 June 1990 (21.06.1990) 25 August 1989 (21.08.1990) 11 October 1989 (11.10.1989)

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PCT/CA2004/001927

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0,272,822 A1	29 June 1988 (29.06.1988)	EP 0,272,822 B1	20 March 1991 (20.03.1991)
		WO 8,804,258 A1	16 June 1988 (16.06.1988)
		IL 0,084,671 A0	31 May 1988 (31.05.1988)
		GB 8,728,145 A	06 January 1988 (06.01.1988)
		GB 2,199,795 A	20 July 1988 (20.07.1988)
		GB 2,199,795 B	29 August 1990 (29.08.1990)
		DE 3,768,790 C0	25 April 1991 (25.04.1991)
		CA 1,321,380	17 August 1993 (17.08.1993)
		BR 8,707,563 A	21 February 1989 (21.02.1989)
		AU 8321587 A1	30 June 1988 (30.06.1988)
		AU 0,601,793 B2	20 September 1990 (20.09.1990)
US 4,676,459	30 June 1987 (30.06.1987)	DE 3,347,679 A1	18 July 1985 (18.07.1985)
		DE 3,347,679 C2	14 November 1985 (14.11.1985)
US 2003/0,228,214 A1	11 December 2003 (11.12.2003)	US 6,692,318	17 February 2002 (17.02.2002)
		WO 03/038286 A2	08 May 2003 (08.05.2003)
		WO 03/038286 A3	12 June 2003 (12.06.2003)
CA 1,057,720	03 July 1979 (03.07.1979)	None	None